ACTIVITY 6: HOW DO CHANGES IN pH AFFECT ENYZME FUNCTION?

Procedure

1. Label 3 test tubes A, B, and C.

2. Add 3 ml liver homogenate to each test tube.

3. Add 3M HCl and 3M NaOH as follows to the test tubes:
   A: 1 drop 3M HCl
   B: no acid/no base
   C: 1 drop 3M NaOH

4. Measure the pH of each solution.

5. Add 3 ml of hydrogen peroxide to each test tube.

6. Observe reactions and record in Table 6.

Table 6: pH and Enzyme Activity

Test Tube	pH	Time for Complete Reaction (sec)	Comparative Description of Reactions
A: 1 drop HCl			
B: no acid/no base			
C: 1 drop NaOH			

Questions to Guide Analysis:

1. What is the relationship between pH and enzyme activity?

2. Stomach enzymes work best at a pH of 2. How might a pH of 4 in the stomach affect digestion?

Lab Data

Record the mass (in grams) of each of the following:

- Cup with group label